



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB46757	Raccoon Lake SRA	5/17/2021	5/19/2021	< 0.30
AB46759	Cagles Mill Lake Beach	5/17/2021	5/19/2021	< 0.30
AB46760	Paynetown SRA	5/17/2021	5/19/2021	< 0.30
AB46761	Fairfax SRA	5/17/2021	5/19/2021	< 0.30
AB46762	Starve Hollow SRA	5/17/2021	5/19/2021	< 0.30
AB46763	Whitewater Memorial SP	5/18/2021	5/19/2021	< 0.30
AB46764	Quakertown SRA	5/18/2021	5/19/2021	< 0.30
AB46765	Mounds SRA	5/18/2021	5/19/2021	< 0.30
AB46766	Hardy Lake SRA	5/18/2021	5/19/2021	< 0.30
AB46758	Deam Lake SRA	5/18/2021	5/19/2021	< 0.30
AB46767	Field Blank	5/17/2021	5/19/2021	< 0.30
AB46768	Deam Lake SRA (Field Duplicate)	5/18/2021	5/19/2021	< 0.30
AB47247	Ft. Ben Harrison SP Dog Lake - East	5/17/2021	5/19/2021	< 0.30
AB47248	Ft. Ben Harrison SP Dog Lake - West	5/17/2021	5/19/2021	< 0.30

Test Information

Request: 5/19/2021 2:31:07 PM

Date: 5/19/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.725 Abs	0.030 µg/L	R ² =0.99743, 96.53			20J4209
MCT Std 0	MICROCYSTINS ADDA 54	1.849 Abs [1.7870] {4.9 C	0.000 µg/L [0.015]	R ² =0.99743, 103.4			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.515 Abs	0.120 µg/L	R ² =0.99743, 84.77			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.447 Abs [1.4810] {3.2 C	0.154 µg/L [0.137]	R ² =0.99743, 80.97			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.084 Abs	0.412 µg/L	R ² =0.99743, 60.66			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.043 Abs [1.0635] {2.7 C	0.454 µg/L [0.433]	R ² =0.99743, 58.36			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.717 Abs	1.061 µg/L	R ² =0.99743, 40.12			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.756 Abs [0.7365] {3.7 C	0.946 µg/L [1.003]	R ² =0.99743, 42.30			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.575 Abs	1.742 µg/L	R ² =0.99743, 32.17			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.588 Abs [0.5815] {1.6 C	1.653 µg/L [1.697]	R ² =0.99743, 32.90			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.388 Abs	> 5.000 µg/L	21.712 %Abs			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.372 Abs [0.3800] {3.0 C	> 5.000 µg/L	20.817 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.686 Abs	0.046 µg/L	94.348 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.581 Abs [1.6335] {4.5 C	0.090 µg/L [0.068]	88.472 %Abs [91.4			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.083 Abs	0.413 µg/L	60.604 %Abs			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.195 Abs [1.1390] {7.0 C	0.314 µg/L [0.363]	66.872 %Abs [63.7			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.948 Abs	0.572 µg/L	53.050 %Abs			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.988 Abs [0.9680] {2.9 C	0.519 µg/L [0.546]	55.288 %Abs [54.1			20J4209



Charles Hostetter 5/19/2021

Test Report (by Request)

Test Information

 Request: 5/19/2021 2:32:12 PM
 Date: 5/19/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB46757	MICROCYSTINS ADDA 54	1.499 Abs	0.128 µg/L	Low, 83.884 %Abs		0.300 - 5.000	20J4209
AB46757	MICROCYSTINS ADDA 54	1.490 Abs [1.4945] {0.4 C	0.132 µg/L [0.130]	Low, 83.380 %Abs		0.300 - 5.000	20J4209
AB46759	MICROCYSTINS ADDA 54	1.534 Abs	0.112 µg/L	Low, 85.842 %Abs		0.300 - 5.000	20J4209
AB46759	MICROCYSTINS ADDA 54	1.494 Abs [1.5140] {1.9 C	0.131 µg/L [0.122]	Low, 83.604 %Abs		0.300 - 5.000	20J4209
AB46760	MICROCYSTINS ADDA 54	1.624 Abs	0.072 µg/L	Low, 90.879 %Abs		0.300 - 5.000	20J4209
AB46760	MICROCYSTINS ADDA 54	1.686 Abs [1.6550] {2.6 C	0.046 µg/L [0.059]	Low, 94.348 %Abs		0.300 - 5.000	20J4209
AB46760MS	MICROCYSTINS ADDA 54	0.976 Abs	0.534 µg/L	54.617 %Abs		0.300 - 5.000	20J4209
AB46760MS	MICROCYSTINS ADDA 54	1.001 Abs [0.9885] {1.8 C	0.503 µg/L [0.518]	56.016 %Abs [55.3		0.300 - 5.000	20J4209
AB46760MSD	MICROCYSTINS ADDA 54	0.985 Abs	0.523 µg/L	55.120 %Abs		0.300 - 5.000	20J4209
AB46760MSD	MICROCYSTINS ADDA 54	0.927 Abs [0.9560] {4.3 C	0.603 µg/L [0.563]	51.875 %Abs [53.4		0.300 - 5.000	20J4209
AB46761	MICROCYSTINS ADDA 54	1.708 Abs	0.037 µg/L	Low, 95.579 %Abs		0.300 - 5.000	20J4209
AB46761	MICROCYSTINS ADDA 54	1.633 Abs [1.6705] {3.2 C	0.068 µg/L [0.053]	Low, 91.382 %Abs		0.300 - 5.000	20J4209
AB46762	MICROCYSTINS ADDA 54	1.620 Abs	0.073 µg/L	Low, 90.655 %Abs		0.300 - 5.000	20J4209
AB46762	MICROCYSTINS ADDA 54	1.650 Abs [1.6350] {1.3 C	0.061 µg/L [0.067]	Low, 92.334 %Abs		0.300 - 5.000	20J4209
AB46763	MICROCYSTINS ADDA 54	1.570 Abs	0.095 µg/L	Low, 87.857 %Abs		0.300 - 5.000	20J4209
AB46763	MICROCYSTINS ADDA 54	1.414 Abs [1.4920] {7.4 C	0.172 µg/L [0.134]	Low, 79.127 %Abs		0.300 - 5.000	20J4209
AB46764	MICROCYSTINS ADDA 54	1.517 Abs	0.119 µg/L	Low, 84.891 %Abs		0.300 - 5.000	20J4209
AB46764	MICROCYSTINS ADDA 54	1.487 Abs [1.5020] {1.4 C	0.134 µg/L [0.127]	Low, 83.212 %Abs		0.300 - 5.000	20J4209
AB46765	MICROCYSTINS ADDA 54	1.666 Abs	0.054 µg/L	Low, 93.229 %Abs		0.300 - 5.000	20J4209
AB46765	MICROCYSTINS ADDA 54	1.589 Abs [1.6275] {3.3 C	0.087 µg/L [0.071]	Low, 88.920 %Abs		0.300 - 5.000	20J4209
AB46766	MICROCYSTINS ADDA 54	1.623 Abs	0.072 µg/L	Low, 90.823 %Abs		0.300 - 5.000	20J4209
AB46766	MICROCYSTINS ADDA 54	1.578 Abs [1.6005] {2.0 C	0.092 µg/L [0.082]	Low, 88.304 %Abs		0.300 - 5.000	20J4209
AB46758	MICROCYSTINS ADDA 54	1.703 Abs	0.039 µg/L	Low, 95.299 %Abs		0.300 - 5.000	20J4209
AB46758	MICROCYSTINS ADDA 54	1.745 Abs [1.7240] {1.7 C	0.022 µg/L [0.031]	Low, 97.650 %Abs		0.300 - 5.000	20J4209
AB46767	MICROCYSTINS ADDA 54	1.758 Abs	0.016 µg/L	Low, 98.377 %Abs		0.300 - 5.000	20J4209
AB46767	MICROCYSTINS ADDA 54	1.719 Abs [1.7385] {1.6 C	0.032 µg/L [0.024]	Low, 96.195 %Abs		0.300 - 5.000	20J4209
AB46768	MICROCYSTINS ADDA 54	1.676 Abs	0.050 µg/L	Low, 93.788 %Abs		0.300 - 5.000	20J4209
AB46768	MICROCYSTINS ADDA 54	1.654 Abs [1.6650] {0.9 C	0.059 µg/L [0.054]	Low, 92.557 %Abs		0.300 - 5.000	20J4209
AB47247	MICROCYSTINS ADDA 54	1.745 Abs	0.022 µg/L	Low, 97.650 %Abs		0.300 - 5.000	20J4209
AB47247	MICROCYSTINS ADDA 54	1.693 Abs [1.7190] {2.1 C	0.043 µg/L [0.032]	Low, 94.740 %Abs		0.300 - 5.000	20J4209
AB47248	MICROCYSTINS ADDA 54	1.782 Abs	0.006 µg/L	Low, 99.720 %Abs		0.300 - 5.000	20J4209
AB47248	MICROCYSTINS ADDA 54	1.782 Abs [1.7820] {0.0 C	0.006 µg/L [0.006]	Low, 99.720 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.966 Abs	0.547 µg/L	54.057 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.916 Abs [0.9410] {3.8 C	0.619 µg/L [0.583]	51.259 %Abs [52.6		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.711 Abs	0.036 µg/L	Low, 95.747 %Abs		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.671 Abs [1.6910] {1.7 C	0.052 µg/L [0.044]	Low, 93.509 %Abs		0.300 - 5.000	20J4209

Charles Hostetter 5/19/2021

Assay Information

Assay Name: MICROCYSTINS ADDA 546_

Version: 2

Temperature: Room Temperature

Last Modified By: Security disabled

Units: µg/L

Assay Description:

Assay Substances:

Controls:

MCT 546 LRB 1

MCT 546 Low-CV

MCT 546 LFB 1

Standards:

MCT Std 0, Concentration = 0.000, Minimum number to use: 2

MCT Std 1, Concentration = 0.150, Minimum number to use: 2

MCT Std 2, Concentration = 0.400, Minimum number to use: 2

MCT Std 3, Concentration = 1.000, Minimum number to use: 2

MCT Std 4, Concentration = 2.000, Minimum number to use: 2

MCT Std 5, Concentration = 5.000, Minimum number to use: 2

Curve valid interval: 1 days 0 hours

Axis Mode: Y = Abs, X = Log(Conc)

Assay Mode: 4-Parameter Logistic Weight by:None

Well Type: Flat bottom

Last Modified On: 9/30/2020 10:02:13 AM

Normal: 0.300 - 5.000

of decimals: 3

Kit Lot Number: 20J4209

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
5/19/2021 2:31:07 PM				
MCT Std 0	1.725 Abs	0.030 µg/L	R ² =0.99743, 96.531 %Abs	RK1:23->A01@2
MCT Std 0	1.849 Abs [1.7870] {4.9 CV}	0.000 µg/L [0.015] {141.4 CV}	R ² =0.99743, 103.470 %Abs	RK1:23->B01@2
MCT Std 1	1.515 Abs	0.120 µg/L	R ² =0.99743, 84.779 %Abs	RK1:24->C01@2
MCT Std 1	1.447 Abs [1.4810] {3.2 CV}	0.154 µg/L [0.137] {17.5 CV}	R ² =0.99743, 80.974 %Abs	RK1:24->D01@2
MCT Std 2	1.084 Abs	0.412 µg/L	R ² =0.99743, 60.660 %Abs	RK1:25->E01@2
MCT Std 2	1.043 Abs [1.0635] {2.7 CV}	0.454 µg/L [0.433] {6.9 CV}	R ² =0.99743, 58.366 %Abs	RK1:25->F01@3
MCT Std 3	0.717 Abs	1.061 µg/L	R ² =0.99743, 40.123 %Abs	RK1:26->G01@3
MCT Std 3	0.756 Abs [0.7365] {3.7 CV}	0.946 µg/L [1.003] {8.1 CV}	R ² =0.99743, 42.306 %Abs	RK1:26->H01@3
MCT Std 4	0.575 Abs	1.742 µg/L	R ² =0.99743, 32.177 %Abs	RK1:27->A02@2
MCT Std 4	0.588 Abs [0.5815] {1.6 CV}	1.653 µg/L [1.697] {3.7 CV}	R ² =0.99743, 32.904 %Abs	RK1:27->B02@2
MCT Std 5	0.388 Abs	> 5.000 µg/L	21.712 %Abs	RK1:28->C02@2
MCT Std 5	0.372 Abs [0.3800] {3.0 CV}	> 5.000 µg/L	20.817 %Abs	RK1:28->D02@2

5/19/2021 2:31:07 PM				
MCT 546 LRB 1	1.686 Abs	0.046 µg/L	94.348 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.581 Abs [1.6335] {4.5 CV}	0.090 µg/L [0.068] {45.8 CV}	88.472 %Abs [91.410 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	1.083 Abs	0.413 µg/L	60.604 %Abs	RK1:30->G02@3
MCT 546 Low-CV	1.195 Abs [1.1390] {7.0 CV}	0.314 µg/L [0.363] {19.3 CV}	66.872 %Abs [63.738 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.948 Abs	0.572 µg/L	53.050 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.988 Abs [0.9680] {2.9 CV}	0.519 µg/L [0.546] {6.9 CV}	55.288 %Abs [54.169 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.7870	0.0150		
MCT Std 0 [SD]	0.0877	0.0212		
MCT Std 0 [%CV]	4.9066	141.4214		
MCT Std 1 [MEAN]	1.4810	0.1370		
MCT Std 1 [SD]	0.0481	0.0240		
MCT Std 1 [%CV]	3.2467	17.5486		
MCT Std 1 [%DIFF]		-8.6667		
MCT Std 2 [MEAN]	1.0635	0.4330		
MCT Std 2 [SD]	0.0290	0.0297		
MCT Std 2 [%CV]	2.7260	6.8588		
MCT Std 2 [%DIFF]		8.2500		
MCT Std 3 [MEAN]	0.7365	1.0035		
MCT Std 3 [SD]	0.0276	0.0813		
MCT Std 3 [%CV]	3.7444	8.1034		
MCT Std 3 [%DIFF]		0.3500		
MCT Std 4 [MEAN]	0.5815	1.6975		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0092	0.0629		
MCT Std 4 [%CV]	1.5808	3.7074		
MCT Std 4 [%DIFF]		-15.1250		
MCT Std 5 [MEAN]	0.3800			
MCT Std 5 [SD]	0.0113			
MCT Std 5 [%CV]	2.9773			
MCT 546 LRB 1 [MEAN]	1.6335	0.0680		
MCT 546 LRB 1 [SD]	0.0742	0.0311		
MCT 546 LRB 1 [%CV]	4.5452	45.7540		
MCT 546 Low-CV [MEAN]	1.1390	0.3635		
MCT 546 Low-CV [SD]	0.0792	0.0700		
MCT 546 Low-CV [%CV]	6.9531	19.2582		
MCT 546 LFB 1 [MEAN]	0.9680	0.5455		
MCT 546 LFB 1 [SD]	0.0283	0.0375		
MCT 546 LFB 1 [%CV]	2.9219	6.8702		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7941
 B = 1.1206
 C = 0.44360
 D = 0.31180
 R2 coef = 0.99743
 50% = 0.655

